

Weekly report (2012.12.10~12.16)

Done

- 1) This week, I made some simple meshes to test my partition program, and found the method used before (simply use distance and normal, applying the same strategy to any pixel) seems too simple to accomplish the job.

Issue 1: As the two example shown below, in the area marked by red point (area where is both boundary and crossing), it's difficult to distinguish one plane from another as for the similar position and normal.

Issue 2: When it comes to some special structure, such as the tip of the horn (marked by green point), the normal changes rather quickly. It means we need a greater tolerance for the normal, which on the other hand makes it harder to distinguish one plane from another.

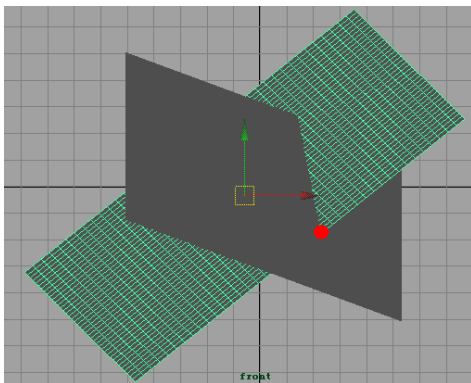


Figure 1 two cross planes

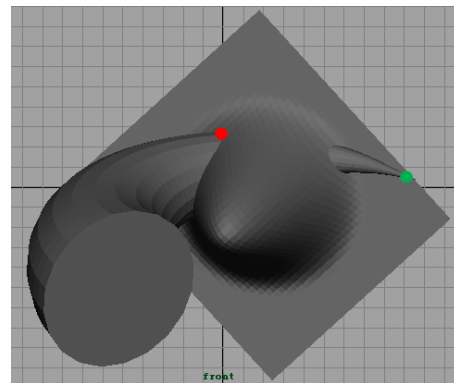


Figure 2 horn across a gauss plane

- 2) Task in the Meteorology Project: surface rendering with visibility culling, so I learned something such as BSP (binary-space-partitioning).

To Do

- 1) Continue surface rendering with visibility culling.